

REMARKS

The final Office Action dated December 15, 2005, and the patents and publications cited therein have been carefully reviewed, and in view of the following remarks reconsideration and allowance of all the claims pending in the application are respectfully requested.

The Rejection Under 35 U.S.C. § 103(a) Over Odagawa In View of Ferchmin

Claims 1-7, 10-16 and 22-35 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Odagawa et al. (Odagawa), U.S. Patent No. 6,436,526, in view of A.R. Ferchmin et al. (Ferchmin), disclosed on page 13, lines 3-7, of the instant patent application.

Applicants respectfully submit that the present invention according to any of claims 1-7, 10-16 and 22-35 is patentable over Odagawa in view of Ferchmin. Applicants respectfully resubmit that Odagawa and Ferchmin are not properly combinable to form a basis for rejection of these claims. Further, there would not be a device resulting from the combination of Odagawa and Ferchmin because, as demonstrated below, Odagawa and Ferchmin are not combinable because Odagawa and Ferchmin teach away from each other. Consequently, neither Odagawa nor Ferchmin disclose or suggest the invention according to any of claims 1-7, 10-16 and 22-35.

Contrary to the Examiner's statement, there simply is no suggestion in either Odagawa or Ferchmin "to modify Odagawa et al. by adding B in the range of 10-25 atomic percent to Co-Fe to make this alloy amorphous for the purpose of increasing current flow through the interface in a magnetic tunnel element." Applicants respectfully submit that the Examiner's proffered motivation for combining Odagawa and Ferchmin ignores the fact that Odagawa discloses that film 210 is a non-magnetic film (see Odagawa, column 22, lines 20, 24 and 34). The Examiner indicates that Odagawa film 210 corresponds to the claimed first layer of claim 1 (see final Office Action, page 2, line 12). Additionally, the Examiner modifies Odagawa film 210 to become an amorphous layer in view of Ferchmin (see final Office Action, page 3, lines 4-7). Because Odagawa film 210 is a non-magnetic film, Applicants respectfully submit that there would be no reason for one of ordinary skill in the art to consider increasing the TMR, a magnetic property, of the Odagawa non-magnetic film 210 in a manner disclosed by Ferchmin.

That is, Ferchmin relates to increasing the TMR of a CoFeB alloy having magnetic and magneto-transport properties and film 210 of Odagawa is non-magnetic. Thus, Applicants respectfully submit that the Examiner's proffered motivation to combine Odagawa and Ferchmin is without a basis. Thus, Odagawa and Ferchmin teach away from each other.

Because Odagawa and Ferchmin cannot be properly combined in the manner suggested by the Examiner, Applicants respectfully submit that Odagawa does not disclose or suggest a magnetic tunnel element comprising a first layer formed from an amorphous material. As demonstrated above, the Examiner indicates that non-magnetic film 210 corresponds to the first layer of claim 1. As such, Ferchmin cannot cure the deficiencies of Odagawa because Odagawa film 210 is non-magnetic and Ferchmin relates to increasing the TMR of a CoFeB alloy having magnetic and magneto-transport properties.

Thus, claim 1 is allowable over Odagawa in view of Ferchmin. It follows that claims 2-7, 10-16 and 22-24, which each incorporate the limitations of claim 1, are each allowable over Odagawa in view of Ferchmin for at least the same reasons that claim 1 is considered allowable.

Regarding claim 25, Applicants respectfully submit that claim 25 is allowable over Odagawa in view of Ferchmin for reasons that are similar to the reasons that claim 1 is considered allowable. It follows that claim 26, which incorporates the limitations of claim 25, is allowable over Odagawa in view of Ferchmin for at least the same reasons that claim 25 is considered allowable.

Regarding claim 27, Applicants respectfully submit that claim 27 is allowable over Odagawa in view of Ferchmin for reasons that are similar to the reasons that claim 1 is considered allowable. Further, claims 28-35, which each incorporate the limitations of claim 27, are each allowable for the reasons that claim 27 is considered allowable.

Thus, Applicants respectfully submit that neither Odagawa nor Ferchmin provides a proper suggestion for combination. It appears that it is only by the Applicants' disclosure that the Examiner attempts to select particular features of Odagawa and Ferchmin as a basis to make the rejection.

Consequently, Applicants respectfully request that the Examiner withdraw this rejection and allow claims 1-7, 10-16 and 22-35.

**The Rejection Under 35 U.S.C. § 103(a) Over Odagawa
In View of Ferchmin And Further In View Of Parkin**

Claim 8 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Odagawa in view of Ferchmin and further in view of Parkin, U.S. Patent No. 5,341,188.

Applicants respectfully submit that the present invention according to claim 8 is patentable over Odagawa in view of Ferchmin and further in view of Parkin. In particular, Applicants respectfully submit that Parkin does not cure the deficiencies of Odagawa and Ferchmin with respect to having a proper suggestion for combination with respect to claim 1, the base claim of claim 8.

Consequently, Applicant respectfully requests that the Examiner withdraw this rejection and allow claim 8.

**The Rejection Under 35 U.S.C. § 103(a) Over Odagawa
In View of Ferchmin And Further In View Of Onodera**

Claim 9 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Odagawa in view of Ferchmin and further in view of Onodera et al. (Onodera), U.S. Publication No. 2002/0168550.

Applicants respectfully submit that the present invention according to claim 9 is patentable over Odagawa in view of Ferchmin and further in view of Onodera. Applicants respectfully submit that Onodera does not cure the deficiencies of Odagawa and Ferchmin with respect to having a proper suggestion for combination with respect to claim 1, the base claim of claim 9.

Consequently, Applicant respectfully requests that the Examiner withdraw this rejection and allow claim 9.

The Rejection Under 35 U.S.C. § 103(a) Over Odagawa And Ferchmin

Claims 17 and 18 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Odagawa and Ferchmin.

Applicants respectfully submit that the present invention according to either of claims 17 and 18 is patentable over Odagawa and Ferchmin. As demonstrated above with respect to claim 1, the base claim of both claims 17 and 18, Applicants respectfully submit that Odagawa and Ferchmin are not properly combinable. Thus, claims 17 and 18, which incorporated the limitations of claim 1, are each allowable for at least the same reasons that claim 1 is considered allowable.

Consequently, Applicant respectfully requests that the Examiner withdraw this rejection and allow claims 17 and 18.

The Rejection Under 35 U.S.C. § 103(a) Over Odagawa And Ferchmin And Further In View Of Saito

Claims 19-21 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Odagawa and Ferchmin and further in view of Saito et al. (Saito), U.S. Patent No. 6,556,473 B2.

Applicants respectfully submit that the present invention according to any of claims 19-21 is patentable over Odagawa and Ferchmin and further in view of Saito. Applicants respectfully submit that Saito does not cure the deficiencies of Odagawa and Ferchmin with respect to having a proper suggestion for combination with respect to claim 1, the base claim for each of claims 19-21.

Consequently, Applicant respectfully requests that the Examiner withdraw this rejection and allow claims 19-21.

CONCLUSION

In view of the above arguments which present the claims in better form for consideration on appeal, it is urged that the present application is now in condition for allowance. Should the Examiner find that a telephonic or personal interview would expedite passage to issue of the

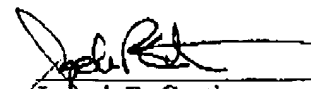
present application, the Examiner is encouraged to contact the undersigned attorney at the telephone number indicated below.

A general authorization under 37 C.F.R. § 1.25(b), second sentence, is hereby given to credit or debit Deposit Account No. 09-0441 for the instant filing and for any other fees during the pendency of this application under 37 C.F.R. §§ 1.16, 1.17 and 1.18.

It is requested that this application be passed to issue with claims 1-35.

Respectfully submitted,

Date: February 13, 2006



Joseph P. Curtin
Registration No. 34,571
1469 N.W. Morgan Lane
Portland, Oregon 97229-5291
(503) 296 8373
(503) 297-0452 (facsimile)